

CSE 4251: Lab 3

Due Date: 10/28 11:59PM

Overview

These exercises will allow you to have some practice with the Unix/Linux environment, basic shell scripts, Regular Expression, commands and basic concepts.

Objectives

- Get familiar with shell programming, writing some basic scripts
- Get familiar with the system working environment and basic commands
- Review of commonly used Unix/Linux commands

Exercise 1 Description

For this exercise you need to create a file with your personal contacts in order to keep track of their phone number, email and birthdays.

You are required to write a bash script titled *createcontacts.sh* that will create a text file called *mycontacts.txt* in the current directory, where each entry (line) consists of fields separated by spaces.

- a. You will need to show the user a menu with a least three options:
 1. Enter a contact
 2. Show contacts
 3. Exit
- b. When the user selects “Enter a contact”, the program should prompt for the contact’s information. Ask the user for the data for each field as follows:
 1. friend's full name: first, last.
 2. his/her birth date (dd-mm)
 3. his/her phone number (xxx-yyy-yyyy)
 4. his/her email (name@domain.xyz)
- c. Save the record to the file, appending the complete record in one line to your contacts file (hint: use append when redirecting the line to the file)
- d. Make the script file executable and execute it to test each one of the input options to be sure that is working

The script must have a comment section header with the script name, your name(s), the date, and a short description of the script.

When you have it working correctly, use the command script to save the evidence that is executing correctly and include it with the submission. Name that file Lab03_1.txt.

Exercise 2 Description

For this exercise you need to manipulate your personal contacts file to find out people whose birthday is today. **Hint: consider using grep, sort**

You are required to write a bash script titled ***searchcontacts.sh*** that will do the following:

- a. The script is going to take as parameters the user's full name: first name, last name.
- b. Greet the user by his or her first name.
- c. Tell the user the day of the week, and the current time in nonmilitary time. The output should resemble the following (See *man* pages for the time/date commands):
Today is Tuesday and the current time is 04:07:38 PM.
- d. Show the contacts whose birthday is today (hint: look at man pages for date options, then use pipes and grep):
These contacts are having a birthday today:
Xxx
- e. Ask the user for a friend's last name (you may add this as a menu option)
Enter a contact last name to search in file:
- f. Search in the file mycontacts.txt for that last name and print out to the screen the line with the information about that person
- g. If not found,
 1. Count the number of lines and tell the user that in the screen
 2. Sort the file (by name) and print out to the Console the contents of the mycontacts.txt file (hint: remember commands for sorting)
- h. Tell the user (use first name) good-bye and the current hour. Exit the script.

The script must have a comment section with the script name, your name(s), the date, and a short description of the script.

When you have it working correctly, use the command script to save the evidence and submit it. Name that file Lab03_2.txt. Adhere to the output format mentioned.

Submission Instructions

To submit, create a single zip file named with the format of **Lab3.zip** that contains the 4 files. Maximum possible points for each file is mentioned below within [].

createcontacts.sh [8]

Lab03_1.txt [2]

searchcontacts.sh [8]

Lab03_2.txt [2]

Points will be deducted for extra files and incorrect naming of the files.